Comments apply to both Stack 4 and Stack 2 Testplans. We will specify if a comment applies specifically to one unit. Comments specifically addressing Stack 2 are likely to apply to Stack 3 as those units are comparably designed and operated.

Overall comment: Test plans to run metals, including Hg, at max feedrate, max temp, and max chlorine. Then, plans to run D/F at minimum temp and possibly lower chlorine feedrates. If chlorine feedrate is important for D/F control, why not run at max. Most importantly, if carbon injection contributes to both Hg and D/F control, isn't it possible that they compete for the carbon? Shouldn't we want to know that D/F is still being controlled when Hg is maximized and that Hg is still being controlled when D/F is maximized? Collect Hg samples during D/F test and collect D/F during Hg test for Stack 4?

Plan proports to run at extreme range of normal, however, the feedrate ranges proposed do not always capture max historical metal feedrates.

Table 1-2 for Stack 4 CPT Plan does not include carbon feedrate.

Blanket FAP/WAP Statement

Section 2.2.1.2 says that containers of wastes are sampled and analyzed after receipt in accordance with FAP and WAP. Keep in mind that these assurances may be heavily qualified. For example, in the latest version of the RCRA WAP I have, incoming containers are checked for color and phase and then 10% are sampled. The latest RCRA WAP I have allows the facility manager to waive this sampling if ". . . performing the analysis presents a safety hazard in the laboratory." The mandatory sampling itself is limited to physical description, Btu, chlorine, radioactivity, flammability, water reactivity, cyanide, oxidizer, pH, and sulfide. Although the facility may elect to do further sampling (such as for MACT metals), these are not part of the mandatory analysis. Lastly, many categories of wastes are considered exempt from these sampling procedures.

Table 2-1 for Stack 2 indicates an external combustion chamber length for both primary and secondary combustion chambers of 1. This value seems incorrect and overall, units (feet or meters) should be indicated. The narrative indicates the external length is 17.5 feet.

Table 2-3, current limit in the NOC does not include adjustments for spike preparation/mass balance for calculating actual feed rates from the 2008 test burns. According to our latest (March 2010) review of this information, the stack 4 mercury feedrate was 0.0214 lbs/hr, not 0.026 lbs/hr. The stack 2 mercury feedrate adjusted for spike mass balance in the March 2010 review was 0.00165 lbs/hr, not 0.0019 lbs/hr as indicated in the NOC. The Stack 3 mercury feedrate adjusted for spike mass balance is 0.0018 lbs/hr.

3.1 Incinerator Feed Stream Descriptions,: Veolia says the profiles and descriptions of feedstreams will be included in the report. Profiles and all available data on the wastestreams to be used during the test must be part of the test plan and reviewed ahead of time. The main reason for this is to confirm that the feedstream sampling schemes during the test are appropriate for the wastestreams. For example, three grab samples composited may not be representative of a heterogenous solid matrix wastestream, if selected for the burn. More grab samples may need to be scheduled to result in a representative

composite. If you do not know how variable a waste is before the test, you cannot judge the compositing procedure. All of this information should be part of the reviewed plan.

Why is ash being fed at higher than normal levels? Does having higher than normal ash interfere with the other conclusions to be drawn from the tests? Is higher than normal ash being spiked during both test conditions? In other words, does higher than normal ash impact the emission rates and effectiveness of air pollution control devices for other MACT constituents?

3.1 The waste profiles should be submitted prior to the test burn.

Carbon is not needed for extrapolation

4.4 Establishing OPLs: For stack 4, we are not sure that enough data is being collected to justify extrapolation. Veolia proposes to potentially extrapolate mercury without extrapolating carbon.

For stack 4, the carbon feedrate OPL is proposed to be the average of three runs. We suggest you consider the concept of carbon to mercury ratio when evaluating each run. The carbon:mercury ratio is an important variable in determining mercury removal (*Modeling Sorbent Injection for Mercury Control in Baghouse Filters: I—Model Development and Sensitivity Analysis*, Flora, J., et al, Journal of Air and Waste Management Association, Volume 53, pp. 489-496, April 2003).

4.5 Waste Feed Spiking: Test plan should include detailed descriptions of spike preparation procedures including manufacturer certificates of purity, scale calibration documentation, and detailed lab methodology demonstrating good laboratory practices for preparing the spikes. Provided that these procedures are appropriate and carried out with good practices, the best estimate of spike feedrate will be based on the concentrations mathematically calculated from a mass balance of spike preparation. Laboratory analysis of spike grab samples can be used to confirm the spike concentration by showing a comparable concentration, however, the spike mass balance will yield the best estimate of spike concentration. The word "verified" should be replaced with "confirmed".

Also, this section refers to system removal efficiencies (SREs). As we understand it, this is a term useful in a RCRA permit, but not generally recognized under MACT. We have not heard that Veolia wants to use SREs for RCRA purposes and have not included RCRA permitting reviewers to the best of our knowledge.

4.5.4 Provide the SOP for producing the mercury spike solution and vials.

4.6 Remove the term "generally agreed".

4.7 Description, Preparation, and Delivery of Feeds for the CPT: We agree that wastes scheduled for the test be characterized in advance of the test and kept until needed. In addition to testing feedstreams during the test, characterization should be made available as part of test plan review. Submit the waste characterizations to the EPA before the test.

4.9 Conditioning Time Needed to Reach Steady State: Stack 4's incinerator has a solids residence time of ½ hour and Stack 2 has a solids residence time of 1 hour. Why then is a 15-minute conditioning time considered appropriate?

4.10 AWFCO System During the CPT: Why are OPLs to be waived for 720 hours if the conditioning time needed for steady state is 7.1 second/ 15-minutes, ½-hour, or 1-hour based on residence times? Waiver of OPLs implies additional pre-testing being conducted. What pre-testing? 30-days without OPLs to prepare for a CPT test that needs an hour or less to reach steady state?

5.1 Sampling Locations and Procedures: We recommend that Veolia plan for the preparation of duplicate samples in the event that EPA or IEPA request split samples for confirmatory analysis. EPA's CRL laboratory has done this in the past.

5.1.1 State who will be collecting and compositing waste samples. Also, the spike solution samples collected need to be analyzed and not archived. The narrative indicates there will be two chromium spike samples collected per run and the table indicates three. Explain.

Table 5-2 Sampling Methods: Are three grab samples adequate for characterizing solid-matrix wastestreams?5.2 Analysis Procedures: Plan must clearly state that results are to be provided on an *as received* or *wet-weight* basis. Do not allow for pre-drying of samples to be analyzed for volatile constituents, such as mercury. All laboratory SOPs are to be submitted with the test plan.

5.4 Use and reference the *EPA Requirements for Quality Assurance Project Plans (QA/R-5)*.

5.4.2 Indicate all the laboratories and sub-laboratories you plan to use.

QAPP Comments

1.0 Include the missing required elements of a QAPP, such as distribution list, problem definition and data quality objectives.

2.0 Indicate who will perform data validation.

3.0 Page 3 of 3 is confusing and not relevant. The purpose of this section is to state all the quality objectives for all sampling and analysis.

4.4 Submit profiles with the plan.

4.5 State the SOP and QA objectives for the waste feed spiking. Reference the successful approaches by Veolia. The spike samples are confirmed, not verified. Why is there mention of SRE in the QAPP? The next several pages are simply rehashing of the CPT with no apparent purpose.

Do we want to repeat the spike procedure statement we had before?

4.7 Conditioning times do not account for solids-residence time.

6.0 There should be a discussion or reference to compositing and sample split procedures. Will samples be composited in a safe manner, such as in a laboratory hood?

6.4 State all sub-contract laboratories and their respective analyses.

8.0 Provide all laboratory specific SOPs with the QAPP.

8.5 State which moisture analysis method will be used by what lab. Specify that results will be presented on an *as received* or *wet weight* basis and that samples to be analyzed for volatile components, such as mercury, will not be dried before extraction.

9.1.2 There should be a discussion or reference to compositing and sample split procedures.

9.2.6 Provide the procedure for spike preparation.

10.1.2 Constituent Feedrate Calculations: Please account for the weight of charge boxes (some facilities use buckets) as fed. The boxes contribute to the weight of material fed to the incinerator, but are not expected to include the same amount of MACT metals as in the waste. The concentrations of MACT metals within the waste should be applied to the weight of the waste only in the mass balance, not the combined weight of the charge box and waste.

10.2 Who will independently validate the data and how? Laboratory validation is not data validation.

11.0 Who will perform the QC analysis?